

Although estimates of the standard error are possible with this sampling approach, they were not calculated for this quick response survey because their calculation is more complicated and time consuming than needed to produce the national estimates. Furthermore, such calculations require specialized software that is not written for the general user. Therefore, significance tests have not been performed. The quality of the estimates can be inferred from the sample quality achieved as shown in Figure 1 [and from the close match between estimates of expenditures from this sample and population data reported by NCES (1995)]. However, it should be kept in mind that the quality of estimates is directly related to the numbers providing responses. In producing national estimates, the re-weighting of responding public library data compensates for non-responding public libraries. The questions left blank or skipped by responding public libraries, however, do affect the precision of the national estimates. Overall response rates for specific questions are not included since, due to the weighted sample, one library response does not correspond to one library estimate. Thus, making the calculation of response rates for each question is impractical.

#### *Longitudinal Comparisons*

In order to be able to make direct comparisons between the 1994 and 1996 data, a set of key questions were asked in the same form. These questions were:

Question Number (1996)	Variable
Question 2	FTE Librarians
Question 3	Library Operating Expenditures
Question 4	Library Materials Expenditures
Question 6	Primary Motivation for Interest in the Internet (with the exception of the choice of "library governing body" that was added for 1996)
Question 7	Current Connection to the Internet
Question 13a	Dial-up Connection
Question 13b	Leased Line Connection (through aggregation)
Question 14	Type of Internet Provider

Other questions are not comparable with 1994 because of modifications in the questions made to reflect changes in public library Internet involvement and technology.

#### *Quality of Data*

An analysis of respondents indicated no non-response bias. The survey results are representative of national demographics indicating excellent representation of the broader public library population (see Figures 1 and 2).

#### *Some Public Library Demographics*

Public library expenditures and number of employees vary by both region and population of legal service area. As library population of legal service area increases, so does the number of full-time equivalents (FTEs) with American Library Association (ALA)-accredited Master in Library Science (MLS) in their title and material and operating expenditures. The national average of ALA-accredited MLS FTEs is 4.0, while the average public library having operating expenditures last fiscal year of \$559,928.14 and material expenditures of \$84,273.50 (see Figure 2). These figures closely match those found by NCES (1995), providing additional verification of the quality of the data.

Overall, Figure 2 shows that public libraries have increased operating and material expenditure budgets as compared to 1994 (McClure, Bertot, and Zweizig, 1994). The data do show, however, some notable decreases in library ALA-accredited MLS FTEs from 1994 to 1996 in the 1 million +, 500,000-999,999, and 25,000-49,999 (-9.6%, -22.0%, and -22.1%, respectively) population of legal service area categories and the Midwest and West (-11.1% and -14.5%, respectively) regional categories. It is unclear to the researchers as to specific reasons for these differences in FTE data. One possible explanation is that public libraries in those regional and population categories that responded to the survey have experienced some decrease in ALA-accredited MLS FTEs and operating expenditures that is magnified through the weighted sample. The magnification due to weighting, combined with some libraries that did not complete that information on the survey, can impact the responses to these questions. It is important to note, though, that the overall ALA-accredited MLS FTEs operating expenditure, and material expenditure data closely match the most recent NCES public library ALA-accredited MLS FTE and expenditure data (1995).

Figure 1. Check on Study Sample and Response Quality.

	Percentage in Population*	Percentage of Respondents
1 million +	0.2%	0.2%
500,000-999,999	0.6%	0.6%
250,000-499,999	1.1%	1.0%
100,000-249,999	3.2%	3.4%
50,000-99,999	5.7%	5.8%
25,000-49,999	9.7%	9.9%
10,000-24,999	18.3%	18.2%
5,000-9,999	17.1%	17.2%
Less than 5,000	44.1%	43.6%

Total Number of Respondents = 1059

Response Rate = 71.1%

\* Using 1993 public library percentages.

Figure 2 also clearly shows that, as library population of legal service area increases, so too do the average number of library FTEs and the average operating and material expenditures. Figure 2 indicates, however, that the distribution of public library material and operating expenditures, as well as the number of FTE staff, is not even across the nation. As with the 1994 data, materials and operating expenditures for the last fiscal year and FTEs were greatest in the West, followed by the South.

### Accessing the Internet

This section of the report presents findings concerning motivations and factors affecting public library involvement with the Internet.

#### *Factors Affecting Public Library Involvement with the Internet*

Public libraries indicate that several factors affect their involvement with the Internet.<sup>3</sup> As Figure 3 indicates, public libraries consider all identified factors to be important in determining public library Internet involvement, with importance ratings ranging from 1.46 to 1.94 (1=very important, 5=very unimportant). Key factors affecting public library Internet involvement include communications costs (1.46), followed by systems costs (1.52), the availability of state money (1.61), and a tie between the availability of in-house computer technical expertise and the availability of

staff time to develop expertise on the Internet (1.64). In general, the data show that as public library population of legal service area decreases, the importance of the factors increases, particularly those factors related to Internet services costs.

While the survey did not ask public libraries to indicate the year in which the library Internet connection was established, data presented in Figure 5 show that a majority of public libraries serving population of legal service areas of 100,000 or greater had some type of Internet connection in 1994. Due to an established technology infrastructure and experience with the Internet, it is expected that Internet services costs and funding considerations would be less important to public libraries in these population service categories.

Figure 3 demonstrates few regional differences for factors affecting public library involvement with the Internet. In general, however, public libraries in the West consider Internet services costs and the availability of federal and/or state money to be less important than do public libraries in other regions.

#### *Public Library Motivation for Interest in the Internet*

As Figure 4 shows, 27.6% of public libraries consider statewide initiatives to be the primary motivation for public library interest in the Internet. In addition, 21.0% of public libraries indicate that the primary

<sup>3</sup>It is important to note that, although the survey provided a general description of these factors, public librarians may define these differently and have differing abilities to identify such factors. As such, these data are best seen as estimates of these factors affecting public library involvement with the Internet.

Figure 2. 1994-1996 Public Library Average ALA-Accredited MLS FTEs, Operating Expenditures, and Materials Expenditures by Population of Legal Service Area and Region.

Population of Legal Service Area

	1996			1994			Change in Percentage		
	FTEs	Operating Expenditures	Materials Expenditures	FTEs	Operating Expenditures	Materials Expenditures	FTEs	Operating Expenditures	Materials Expenditures
1 million +	167.9	\$30,422,011	\$3,907,868	185.8	\$30,551,227	\$3,517,661	-9.6%	-0.4%	11.1%
500,000-999,999	72.4	\$14,365,313	\$2,303,469	92.8	\$14,338,160	\$2,326,304	-22.0%	0.2%	-1.0%
250,000-499,999	38.9	\$6,624,655	\$967,047	33.8	\$5,329,118	\$779,110	15.1%	24.3%	24.1%
100,000-249,999	16.2	\$2,856,098	\$418,778	15.6	\$2,287,103	\$355,837	3.8%	24.9%	17.7%
50,000-99,999	8.2	\$1,198,756	\$182,361	8.3	\$1,111,280	\$162,449	-1.2%	7.9%	12.3%
25,000-49,999	6.0	\$725,418	\$100,436	7.7	\$627,939	\$94,150	-22.1%	15.5%	6.7%
10,000-24,999	3.1	\$353,533	\$54,652	2.8	\$282,987	\$47,205	10.7%	24.9%	15.8%
5,000-9,999	1.6	\$138,961	\$22,515	1.3	\$101,300	\$20,270	23.1%	37.2%	11.1%
Less than 5,000	1.0	\$39,463	\$9,180	0.9	\$25,928	\$5,811	11.1%	52.2%	58.0%

Region

	1996			1994			Change in Percentage		
	FTEs	Operating Expenditures	Materials Expenditures	FTEs	Operating Expenditures	Materials Expenditures	FTEs	Operating Expenditures	Materials Expenditures
Midwest	3.2	\$403,293	\$65,832	3.6	\$363,014	\$60,848	-11.1%	11.1%	8.2%
Northeast	3.7	\$449,817	\$58,327	3.5	\$390,635	\$56,389	5.7%	15.2%	3.4%
South	5.6	\$735,648	\$120,264	4.5	\$576,612	\$96,445	24.4%	27.6%	24.7%
West	5.9	\$1,096,018	\$155,786	6.9	\$997,899	\$127,531	-14.5%	9.8%	22.2%
Overall	4.0	\$559,928	\$84,274	4.1	\$484,068	\$73,930	-2.4%	15.7%	14.0%

Figure 3. Factors Affecting Public Library Involvement with the Internet by Population of Legal Service Area and Region.

Population of Legal Service Area									
	System/ Server Costs	Software Costs	Comm. Cost	Training/ Education Costs	Content/ Resources Costs	In-house Expertise	Staff Time	Federal Money	State Money
1 million +	1.97	3.15	1.94	2.70	3.13	2.39	2.13	2.87	2.46
500,000-999,999	2.14	2.47	2.13	2.09	2.25	1.75	1.94	3.28	2.93
250,000-499,999	1.78	2.22	1.78	2.34	2.54	1.76	1.82	2.47	2.21
100,000-249,999	1.65	2.17	1.72	2.28	2.68	1.83	1.74	2.57	2.17
50,000-99,999	1.86	2.33	1.64	2.67	2.55	2.02	1.72	2.46	2.06
25,000-49,999	1.73	2.10	1.77	2.12	2.31	1.88	1.66	2.38	1.86
10,000-24,999	1.72	2.15	1.59	1.90	2.25	1.75	1.49	2.04	1.84
5,000-9,999	2.00	1.70	1.31	1.74	1.79	1.60	1.29	1.51	1.39
Less than 5,000	1.33	1.48	1.32	1.56	1.62	1.49	1.49	1.52	1.41

1 = Very Important / 5 = Very Unimportant

Region									
	System/ Server Costs	Software Costs	Comm. Cost	Training/ Education Costs	Content/ Resources Costs	In-house Expertise	Staff Time	Federal Money	State Money
Midwest	1.54	1.79	1.46	1.75	1.96	1.72	1.58	1.84	1.63
Northeast	1.56	1.76	1.49	1.82	1.89	1.58	1.38	1.75	1.57
South	1.43	1.81	1.40	1.79	1.86	1.63	1.49	1.69	1.49
West	1.54	1.89	1.45	2.03	2.14	1.61	1.54	2.08	1.90
Overall	1.52	1.79	1.46	1.81	1.94	1.64	1.64	1.81	1.61

motivation for Internet interest comes from the library administration, closely followed by 20.6% indicating interest by community strategic planning. There is a clear three-way split in terms of motivation for public library interest in the Internet by library population of legal service area: Library strategic planning serves as the primary impetus for public library Internet interest for the largest libraries, library administration provides library interest in medium-sized libraries, and statewide initiatives supply Internet interest in small libraries. In comparing the primary interest of public library Internet access to 1994, there is a dramatic increase in the motivation of community strategic planning (+17.4%) for public library Internet interest.

There are few regional differences in public library motivation for interest in the Internet (see Figure 4). Public libraries in all regions consider the primary motivation for library interest in the Internet to be statewide initiatives. Libraries in the South and West, however, consider community strategic planning to affect

the library's interest in the Internet more heavily (24.5% and 23.6%, respectively) than do libraries in the Midwest and Northeast (19.2% and 18.7%, respectively). Moreover, libraries in the South and West experienced the largest increases in community strategic planning activities since 1994, 22.1% and 21.8%, respectively, as compared to 14.3% for libraries in the Midwest and 16.6% for libraries in the Northeast.

#### The Current State of Public Library Internet Connectivity

The following section details the current state of public library connectivity, including the percentage of public libraries connected to the Internet, the type(s) of Internet connection public libraries have, the future Internet connectivity plans non-Internet connected public libraries have, the type of network connection provider public libraries use, and the estimated cost of public library Internet services. Comparisons to the 1994 *Public Libraries and the Internet* study are made where possible.

Figure 4. 1994-1996 Primary Motivation for Public Library Interest in the Internet by Population of Legal Service Area and Region.

Population of Legal Service Area							
	1996						
	Library Strategic Planning	Statewide Initiatives	Library Administration	Library Governing Board	Community Strategic Planning	Internal Staff Expertise	Other
1 Million +	51.4%	0.0%	27.3%	0.0%	14.8%	0.0%	6.5%
500,000-999,999	51.3%	6.4%	19.9%	3.0%	6.4%	7.3%	5.8%
250,000-499,999	45.0%	11.0%	23.3%	0.0%	14.1%	6.7%	0.0%
100,000-249,000	28.1%	19.5%	21.3%	1.6%	18.1%	7.4%	4.0%
50,000-99,999	24.0%	18.1%	27.6%	0.6%	21.8%	3.7%	3.4%
25,000-49,999	24.8%	20.2%	24.9%	1.5%	16.8%	7.9%	3.9%
10,000-24,999	13.1%	25.2%	23.3%	2.5%	21.8%	9.5%	4.7%
5,000-9,999	12.7%	26.4%	19.8%	3.0%	27.0%	4.7%	6.3%
Less than 5,000	8.4%	34.1%	18.4%	8.8%	18.9%	4.3%	7.1%

Region

Midwest	13.1%	26.8%	19.6%	6.9%	19.2%	6.8%	7.6%
Northeast	16.3%	28.2%	25.0%	3.2%	18.7%	3.5%	5.1%
South	14.1%	26.6%	20.6%	5.4%	24.5%	4.9%	3.9%
West	12.9%	30.7%	16.0%	2.0%	23.6%	10.2%	4.6%
Overall	14.2%	27.6%	21.0%	4.9%	20.6%	5.8%	5.8%

Population of Legal Service Area

	1994						
	Library Strategic Planning	Statewide Initiatives	Library Administration	Library Governing Board	Community Strategic Planning	Internal Staff Expertise	Other
1 Million +	57.2%	0.0%	19.6%	-	0.0%	17.6%	5.6%
500,000-999,999	57.6%	13.5%	14.2%	-	0.0%	9.8%	4.9%
250,000-499,999	31.0%	22.8%	30.2%	-	1.3%	14.7%	0.0%
100,000-249,000	28.3%	16.4%	33.5%	-	3.9%	9.8%	8.1%
50,000-99,999	20.6%	23.2%	30.0%	-	2.4%	14.8%	9.0%
25,000-49,999	20.4%	28.1%	33.5%	-	2.2%	6.4%	10.1%
10,000-24,999	19.3%	29.3%	31.6%	-	2.4%	8.8%	8.7%
5,000-9,999	20.9%	32.8%	28.5%	-	2.5%	6.1%	9.3%
Less than 5,000	12.2%	41.0%	20.3%	-	4.4%	5.9%	16.2%

Region

Midwest	15.1%	33.3%	23.6%	-	4.9%	7.9%	15.2%
Northeast	20.3%	36.1%	21.4%	-	2.1%	9.1%	11.0%
South	15.1%	28.8%	39.8%	-	2.4%	4.5%	9.5%
West	26.4%	33.8%	25.7%	-	1.8%	6.8%	5.6%
Overall	17.8%	33.1%	26.5%	-	3.2%	7.4%	11.7%

Continued

**Figure 4 (continued). 1994-1996 Primary Motivation for Public Library Interest in the Internet by Population of Legal Service Area and Region.**

Population of Legal Service Area							
	Change in Percentage						
	Library Strategic Planning	Statewide Initiatives	Library Administration	Library Governing Board	Community Strategic Planning	Internal Staff Expertise	Other
1 Million +	-5.8%	0.0%	7.7%	-	14.8%	-17.6%	0.9%
500,000-999,999	-6.3%	-7.1%	5.7%	-	6.4%	-2.5%	0.9%
250,000-499,999	14.0%	-11.8%	-6.9%	-	12.8%	-8.0%	0.0%
100,000-249,999	-0.2%	3.1%	-12.2%	-	14.2%	-2.4%	-4.1%
50,000-99,999	3.4%	-5.1%	-2.4%	-	19.4%	-11.1%	-5.6%
25,000-49,999	4.4%	-7.9%	-8.6%	-	14.6%	1.5%	-6.2%
10,000-24,999	-6.2%	-4.1%	-8.3%	-	19.4%	0.7%	-4.0%
5,000-9,999	-8.2%	-6.4%	-8.7%	-	24.5%	-1.4%	-3.0%
Less than 5,000	-3.8%	-6.9%	-1.9%	-	14.5%	-1.6%	-9.1%

Region							
	Change in Percentage						
	Library Strategic Planning	Statewide Initiatives	Library Administration	Library Governing Board	Community Strategic Planning	Internal Staff Expertise	Other
Midwest	-2.0%	-6.5%	-4.0%	-	14.3%	-1.1%	-7.6%
Northeast	-4.0%	-7.9%	3.6%	-	16.6%	-5.6%	-5.9%
South	-1.0%	-2.2%	-19.2%	-	22.1%	0.4%	-5.6%
West	-13.5%	-3.1%	-9.7%	-	21.8%	3.4%	-1.0%
Overall	-3.6%	-5.5%	-5.5%	-	17.4%	-1.6%	-5.9%

*Percentage of Public Libraries Connected to the Internet and Population Served*

At present, 44.6% of all public libraries have some type of Internet connection (see Figure 5). This is an increase of 23.7% from the 20.9% level of public library connectivity in 1994. In general, as public library population of legal service area increases, so too does the percentage of public library Internet connectivity, with 82.0% of public libraries with population of legal service areas of greater than 1 million and 31.3% of public libraries with population of legal service areas of less than 5,000 having some type of Internet connection. Indeed, nearly all public libraries with population of legal service areas of 100,000 or greater have some type of Internet connection (percentage of connectivity ranging from 82.0% to 96.1%). As Figure 5 indicates, the largest increases in public library Internet connectivity occurred in libraries with population of legal service areas between 25,000 and 249,999 (percentage increases ranging from 31.3% to 45.5%)

Public library Internet connectivity varies by region, with 53.7% of libraries in the West having some type of Internet connection, followed by 51.1% in the Northeast, 44.5% in the Midwest, and 39.0% in the South (see Figure 5). The greatest percentage of increase in Internet connectivity from 1994 occurred in the Midwest with 29.1%, followed by 25.5% in the West, 25.2% in the Northeast, and 20.4% in the South.

When public libraries not currently connected to the Internet were asked to indicate future Internet connectivity plans, 56.7% indicated that their libraries planned to have some type of Internet connection by March 1997 (see Figure 6). Of that 56.7%, 16.3% indicated that the library planned to have a library staff-only Internet connection, while 40.4% indicated that the library planned to have a library staff and public access Internet connection. As public library population of legal service area decreases, the percentage of public libraries indicating no Internet connection plans increases (percentages ranging from 0.0% to 47.3%).

**Figure 5. 1994-1996 Public Libraries Connected to the Internet by Population of Legal Service Area and Region.**

Population of Legal Service Area			
	1996	1994	Change in Percentage
1 million +	82.0%	77.0%	5.0%
500,000-999,999	93.1%	64.0%	29.1%
250,000-499,999	96.1%	76.0%	20.1%
100,000-249,999	88.2%	54.4%	33.8%
50,000-99,999	75.0%	43.7%	31.3%
25,000-49,999	73.1%	27.6%	45.5%
10,000-24,999	53.1%	23.2%	29.9%
5,000-9,999	40.6%	12.9%	27.7%
Less than 5,000	31.3%	13.3%	18.0%

Region			
	1996	1994	Change in Percentage
Midwest	44.5%	15.4%	29.1%
Northeast	51.1%	25.9%	25.2%
South	39.0%	18.6%	20.4%
West	53.7%	28.2%	25.5%
Overall	44.6%	20.9%	23.7%

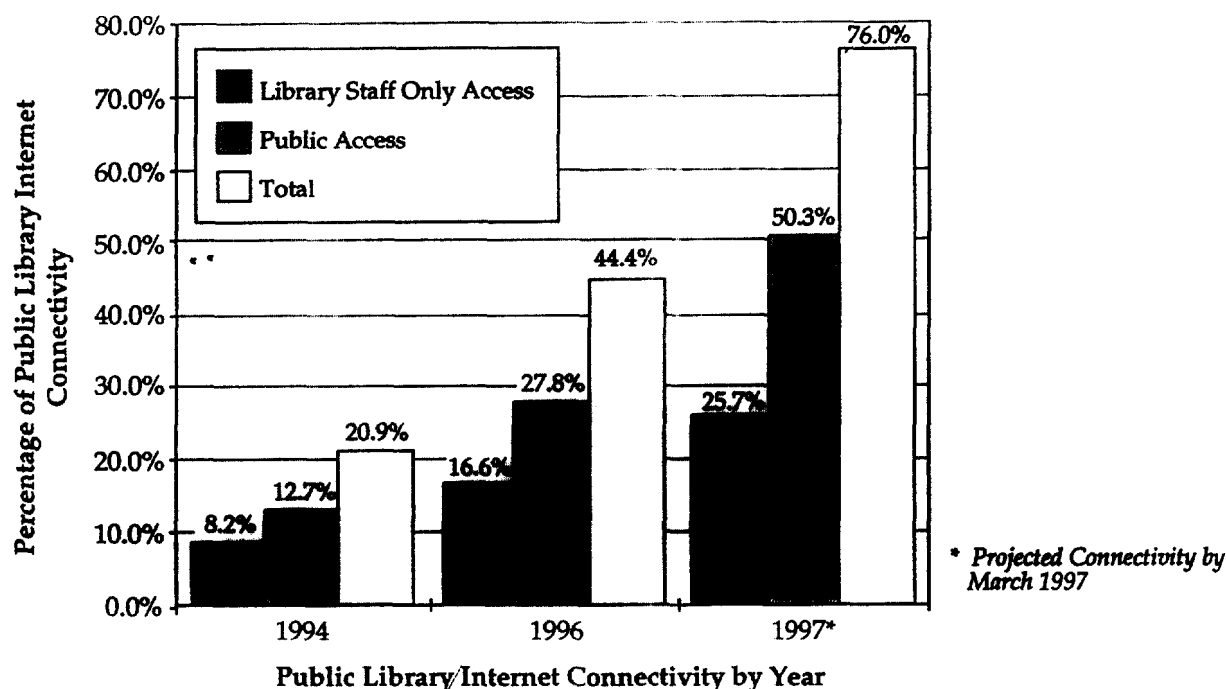
**Figure 6. Public Libraries Planning to Connect to the Internet in the Next 12 Months by Population of Legal Service Area and Region.**

Population of Legal Service Area			
	Library Staff Use Only	Library Staff Use and Public Access	No Connection Planned
1 million +	0.0%	0.0%	0.0%
500,000-999,999	25.7%	74.3%	0.0%
250,000-499,999	31.9%	68.1%	0.0%
100,000-249,999	25.4%	70.0%	4.6%
50,000-99,999	29.8%	53.3%	16.9%
25,000-49,999	30.5%	42.1%	27.4%
10,000-24,999	21.7%	43.0%	35.3%
5,000-9,999	18.4%	44.7%	37.0%
Less than 5,000	12.6%	40.1%	47.3%

Region			
	Library Staff Use Only	Library Staff Use and Public Access	No Connection Planned
Midwest	20.5%	37.5%	42.0%
Northeast	18.0%	43.8%	38.2%
South	12.9%	40.2%	46.9%
West	9.0%	59.6%	31.4%
Overall	16.3%	40.4%	43.3%

Figure 7. 1994-1996 and Projected Public Library Internet Connectivity.



Public libraries that serve larger population of legal service areas, therefore, will continue to have greater percentages of public library Internet connections in general and public access-capable connections in particular.

As Figure 6 shows, future public library Internet connection plans vary by region. Public libraries in the Midwest indicate the greatest percentage of library staff-only Internet connection plans with 20.5%, followed by 18.0% in the Northeast, 12.9% in the South, and 9.0% in the West. The near reverse trend is true for library staff and public access connection plans, with 59.6% of public libraries in the West indicating plans for library staff and public access, followed by 43.8% of libraries in the Northeast, 40.2% in the South, and 37.5% in the Midwest. Public libraries in the South indicate the highest percentage of "no planned Internet connection" with 46.9%, while public libraries in the West indicate the lowest percentage of "no planned Internet connection" with 31.4%. Such plans for Internet connectivity will continue the disparity in connection by region (as shown in Figure 5), with the West outpacing the rest of the nation.

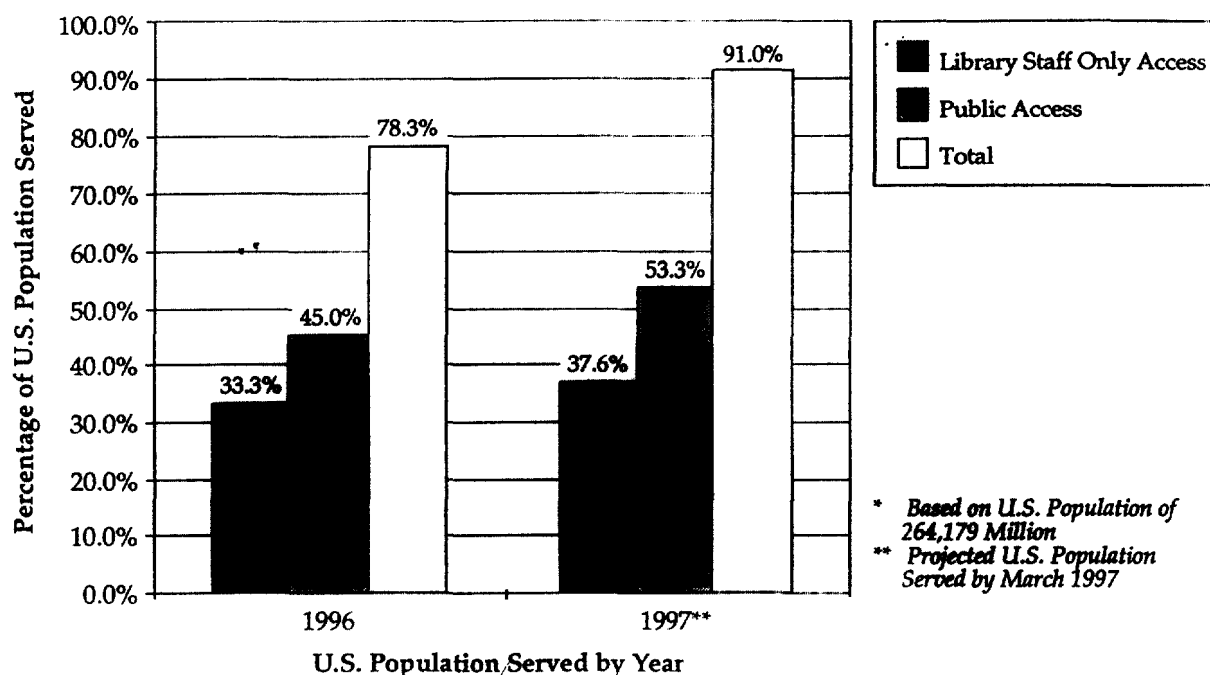
Figure 7 provides a slightly different view of the past, current, and future state of public library Internet

connectivity. Of the 20.9% of public libraries connected to the Internet in 1994, slightly more public libraries provided public access Internet services (12.7%) than Internet services for library staff only (8.2%). In 1996, the growth in public access Internet services increased to 27.8% with only 16.6% of public libraries having library staff-only Internet connections. Should public libraries not currently connected to the Internet follow through with their connection plans by March 1997, 76.0% of public libraries will have some type of Internet connection, of which 50.3% will provide public access Internet services and 25.7% will provide library staff-only Internet services. More public libraries that are connecting to the Internet, therefore, are providing public access Internet services than library staff-only Internet services. The authors note that the estimated 1997 public access figures may be underestimated due to some public libraries that currently have library staff-only connections offering public access Internet services in the future.

Establishing the current percentage of public libraries connected to the Internet was a critical aspect of this study to ascertain changes in connectivity since 1994, as well as to determine the current state of public library Internet connectivity. Equally as important, however, is determining what percentage of the U.S.



Figure 8. U.S. Population Served by Public Libraries Connected to the Internet\*.



population is served by a public library with some type of Internet connection. Based on February 1, 1996 Census data (U.S. Bureau of the Census, 1996) and a weighted estimate of the U.S. population served by a public library with Internet connectivity, 78.3% of the U.S. population is served by a public library that has an Internet connection (see Figure 8).<sup>4</sup> Of that 78.3%, 45.0% have access to a library that provides public access Internet services while 33.3% will have access to a library that provides staff only Internet services. In estimating the U.S. population served by an Internet-connected public library by March 1997, 91.0% of the U.S. population will be in a legal population area served by a public library that has an Internet connection. Of that 91.0%, 53.3% will have access to a library that provides public access Internet services while 37.6% will have access to a library that provides staff-only Internet services. Once again, the authors note the potential underestimating of percentage of the U.S. population that will have access to a public library that provides public access Internet services as libraries that currently only provide library staff only Internet ser-

vices begin providing public access Internet services as well.

Figure 9 compares public libraries that currently have some type of Internet connection to those libraries that currently do not possess an Internet connection along the factors that affect current library involvement with the Internet (as presented in Figure 3, with 1=Very Important and 5=Very Unimportant). The data show that public libraries not currently connected to the Internet consistently rate cost factors (average importance rankings from 1.34 to 1.53), the availability of in-house expertise and staff time (average importance rankings of 1.51 and 1.40, respectively), and the availability of federal and state money (average importance rankings of 1.45 and 1.35, respectively) as more important than do currently connected libraries. Libraries without an Internet connection at present, therefore, identify the costs of Internet connectivity, the availability of state and federal money for connectivity, and the internal library preparedness as barriers to developing library Internet connections.

<sup>4</sup>These computations are based on the legal population served by public libraries as defined and reported in data described by NCES (1995).

**Figure 9. Factors Affecting Public Library Involvement with the Internet by Libraries Connected to the Internet.**

	System/ Server Costs	Software Costs	Comm. Cost	Training/ Education Costs	Content/ Resources Costs	In-house Expertise	Staff Time	Federal Money	State Money
Not Connected	1.34	1.52	1.29	1.53	1.50	1.51	1.40	1.45	1.35
Connected	1.74	2.09	1.66	2.05	2.43	1.80	1.61	2.23	1.91

1 = Very Important, 5 = Very Unimportant

#### *Type of Network Connection and Connection Provider*

The following data detail the type of Internet connection, bandwidth and speed of the connection, and Internet provider public libraries are currently using to access the Internet. The percentages presented for this section will not total to 100.0%, as libraries were asked to list all the types of connections, providers, and access speeds of their Internet connections. As the data show, many libraries have multiple types of connections and providers.

As Figure 10 shows, the most common type of dial-up Internet connection is text-based terminal access (46.2% of public libraries with a dial-up connection). This is followed by 28.4% of public libraries having a workstation Serial Line Internet Protocol (SLIP) or Point-to-Point (PPP) connection and 20.2% of public libraries having an Internet gateway (e.g., a commercial provider such as America On-Line) connection. It is interesting to note that public libraries, in general, have comparable percentages of dial-up Internet connections for all population of legal service area categories except for the less than 5,000 population of legal service area category, in which such libraries have the highest percentage of terminal access (50.9%) and the lowest percentage of workstation SLIP/PPP access (14.3%).

The type of public library Internet connection varies substantially by region (see Figure 10). Public libraries in the Midwest and Northeast are more likely to have dial-up text-based terminal Internet access (46.0% and 57.1%, respectively). Public libraries in the South and West, however, have relatively equal percentages of text-based terminal Internet access (33.2% and 39.7%, respectively) and workstation SLIP/PPP Internet access (36.7% and 38.8%, respectively).

In comparing the public library type of dial-up connection from 1994 to 1996, public libraries have, overall, decreased the percentage of text-based terminal access connections (-0.9%), increased the percentage of Internet gateway connections (+6.3%), and increased the percentage of workstation SLIP/PPP connections (+16.6%). Public libraries servicing population of legal service areas of 249,999 or less tend to have increased their workstation SLIP/PPP connections in greater percentages (percentages ranging from 11.9% to 28.1%) than public libraries servicing population of legal service areas of 250,000 or greater (percentages ranging from 7.6% to 17.2%). Interestingly, public libraries in the Midwest and Northeast increased the percentage of text-based terminal Internet access by 4.4% and 6.3%, respectively, as compared to public libraries in the South and West that decreased the percentage of text-based terminal Internet access by 13.6% and 7.2%, respectively. At the same time, public libraries in all regions increased their percentage of workstation SLIP/PPP access, led by public libraries in the South with 22.1% and the West with 22.0%.

Public library dial-up connections essentially operate at the same maximum modem speed (see Figure 11). In all, 32.6% of public library dial-up connections run at a baud-rate of 14,400 bits-per-second (bps), followed by 31.5% that run at a baud rate of 9,600bps, and 31.0% that run at a baud rate of 28,800bps. In general, public libraries that serve population of legal service areas of 10,000 or greater have higher percentages of 28,800bps modems than other public libraries (percentages ranging from 34.2% to 59.1%), while libraries that serve population of legal service areas of 9,999 or less have higher percentages of 9,600bps modems than other public libraries (percentages ranging from 32.6% to 46.2%). The distribution of 14,400bps modems is relatively constant across all library popula-

Figure 10. 1994-1996 Public Library Type of Dial-Up Internet Connection by Population of Legal Service Area and Region.

	1996				1994 *				Change in Percentage			
	Terminal Access	Internet Gateway Access	Workstation SLIP/PPP Access	Other	Terminal Access	Internet Gateway Access	Workstation SLIP/PPP Access	Other	Terminal Access	Internet Gateway Access	Workstation SLIP/PPP Access	Other
1 Million +	39.3%	25.8%	34.9%	0.0%	40.5%	12.3%	17.7%	0.0%	-1.2%	13.5%	17.2%	0.0%
500,000-999,999	49.2%	13.0%	35.3%	2.4%	35.9%	9.3%	27.7%	8.3%	13.3%	3.7%	7.6%	-5.9%
250,000-499,999	49.7%	16.4%	30.7%	3.3%	48.7%	11.1%	21.2%	4.0%	1.0%	5.3%	9.5%	-0.7%
100,000-249,999	37.0%	22.8%	35.9%	4.4%	52.9%	13.1%	7.8%	8.5%	-15.9%	9.7%	28.1%	-4.1%
50,000-99,999	36.3%	22.6%	33.6%	7.6%	51.7%	18.7%	15.0%	6.1%	-15.4%	3.9%	18.6%	1.5%
25,000-49,999	43.8%	18.9%	35.3%	2.0%	54.3%	16.8%	19.5%	7.3%	-10.5%	2.1%	15.8%	-5.3%
10,000-24,999	48.5%	14.6%	32.7%	4.1%	47.4%	13.6%	15.2%	7.1%	1.1%	1.0%	17.5%	-3.0%
5,000-9,999	48.0%	14.8%	32.3%	4.9%	45.7%	26.9%	11.2%	8.0%	2.3%	-12.1%	21.1%	-3.1%
Less than 5,000	50.9%	26.7%	14.3%	8.2%	43.9%	8.1%	2.4%	17.2%	7.0%	18.6%	11.9%	-9.0%

## Region

	1996				1994 *				Change in Percentage			
	Terminal Access	Internet Gateway Access	Workstation SLIP/PPP Access	Other	Terminal Access	Internet Gateway Access	Workstation SLIP/PPP Access	Other	Terminal Access	Internet Gateway Access	Workstation SLIP/PPP Access	Other
Midwest	46.0%	22.1%	25.9%	6.1%	41.6%	13.2%	13.8%	9.9%	4.4%	8.9%	12.1%	-3.8%
Northeast	57.1%	15.7%	21.7%	5.6%	50.8%	16.9%	7.1%	10.6%	6.3%	-1.2%	14.6%	-5.0%
South	33.2%	25.9%	36.7%	4.2%	46.8%	13.5%	14.6%	11.8%	-13.6%	12.4%	22.1%	-7.6%
West	39.7%	17.3%	38.8%	4.3%	46.9%	8.3%	16.8%	2.8%	-7.2%	9.0%	22.0%	1.5%
Overall	46.2%	20.2%	28.4%	5.3%	47.1%	13.9%	11.8%	9.4%	-0.9%	6.3%	16.6%	-4.1%

\* Due to the slight difference in 1994-1996 connectivity survey questions, these percentages do not total 100%.

**Figure 11. Maximum Speed of Public Library Dial-Up Connection by Population of Legal Service Area and Region.**

Population of Legal Service Area				
	Speed of Connection			
	9600 bps	14400 bps	28800 bps	Other
1 million +	9.0%	25.8%	57.3%	7.9%
500,000-999,999	11.4%	29.5%	59.1%	0.0%
250,000-499,999	22.1%	39.8%	35.7%	2.5%
100,000-249,999	15.7%	38.1%	42.1%	4.1%
50,000-99,999	22.0%	33.2%	39.5%	5.4%
25,000-49,999	31.8%	25.6%	34.2%	8.4%
10,000-24,999	23.3%	32.9%	40.0%	3.7%
5,000-9,999	32.3%	27.8%	33.6%	6.2%
Less than 5,000	46.2%	37.3%	13.0%	3.5%

Region				
	Speed of Connection			
	9600 bps	14400 bps	28800 bps	Other
Midwest	30.9%	33.6%	31.2%	4.3%
Northeast	43.9%	26.3%	23.2%	6.6%
South	22.4%	31.9%	42.0%	3.7%
West	17.6%	44.7%	32.9%	4.8%
Overall	31.5%	32.6%	31.0%	4.9%

tion of legal service areas. The very small public libraries, therefore, have slower Internet dial-up connectivity capabilities than do medium-large public libraries.

As Figure 11 indicates, dial-up connection speed varies by region. Public libraries in the Midwest and Northeast have greater percentages of 9,600bps modems (30.9% and 43.9%, respectively) than do public libraries in the South and West (22.4% and 17.6%, respectively). Public libraries in the West are more apt to have a maximum modem speed of 14,400bps, with 44.7%, whereas public libraries in the South are more likely to have a maximum modem speed of 28,800bps, with 42.0%.

Public libraries that access the Internet through leased-line connections are more likely to do so through an on-line public access catalog (OPAC) gateway than through a local area network (LAN), with 48.7% and 37.6%, respectively (see Figure 12). In general, as public library population of legal service area increases, so too does the use of LANs. Meanwhile, as population of legal service area decreases, the use of OPAC gateway Internet access increases. An interesting exception for OPAC and LAN access to the Internet

exists for public libraries with a population of legal service area of less than 5,000 — these libraries have the highest percentage, 64.1%, of LAN use for Internet access and the lowest percentage, 35.9%, for OPAC Internet access. Libraries in the Midwest and Northeast are more likely to have OPAC access to the Internet (48.4% and 58.7%, respectively) than libraries in the South and West (28.4% and 35.8%, respectively). Public libraries in the West have the highest percentage of LAN Internet access with 52.0%, followed by 37.1% in the Midwest, 27.1% in the South, and 25.5% in the Northeast.

The 1996 OPAC and LAN categories were combined to compare 1994 and 1996 public library leased-line Internet access (see Figure 13). Overall, there is a 33.0% increase in public library leased-line access, with the most significant increases in leased-line access occurring in public libraries that serve population of legal service areas of 25,000 or greater (change in percentage ranging from 39.0% to 68.3%). The most significant increase in leased-line Internet access occurred in libraries in the West, 40.6%, and Northeast, 36.0%.

Public libraries with leased-line Internet connections most commonly access the Internet through a

**Figure 12. Public Library Type and Maximum Speed of Leased-Line Connection by Population of Legal Service Area and Region.**

Population of Legal Service Area							
	Type of Leased Line Connection			Speed of Leased Line Connection			
	On-line Public Access	Local Area Network	Other	56K	T1	T3	Other
1 million +	45.3%	39.9%	14.8%	44.8%	46.0%	0.0%	9.2%
500,000-999,999	46.2%	44.3%	9.5%	42.7%	57.3%	0.0%	0.0%
250,000-499,999	51.7%	39.4%	8.9%	58.1%	35.6%	0.0%	6.3%
100,000-249,999	42.7%	43.9%	13.4%	60.0%	28.0%	0.0%	12.1%
50,000-99,999	54.5%	37.7%	7.8%	63.7%	30.7%	0.0%	5.6%
25,000-49,999	49.8%	35.3%	14.9%	76.6%	18.2%	0.0%	5.2%
10,000-24,999	54.0%	28.6%	17.4%	82.1%	7.5%	0.0%	10.4%
5,000-9,999	52.1%	14.5%	33.4%	83.3%	0.0%	0.0%	16.7%
Less than 5,000	35.9%	64.1%	0.0%	86.4%	0.0%	0.0%	13.6%

Region							
	Type of Leased Line Connection			Speed of Leased Line Connection			
	On-line Public Access	Local Area Network	Other	56K	T1	T3	Other
Midwest	48.4%	37.1%	14.5%	78.8%	12.3%	0.0%	8.9%
Northeast	58.7%	25.5%	15.8%	76.0%	13.4%	0.0%	10.6%
South	28.4%	27.1%	6.2%	64.2%	25.9%	0.0%	9.9%
West	35.8%	52.0%	12.1%	66.1%	27.6%	0.0%	6.2%
Overall	48.7%	37.6%	13.7%	72.8%	18.2%	0.0%	9.0%

**Figure 13. 1994-1996 Public Library Leased-Line Connections by Population of Legal Service Area and Region.**

Population of Legal Service Area			
	1996	1994	Change in Percentage
1 Million +	82.4%	28.4%	54.0%
500,000-999,999	87.1%	18.8%	68.3%
250,000-499,999	78.2%	15.1%	63.1%
100,000-249,999	56.0%	17.0%	39.0%
50,000-99,999	48.4%	5.0%	43.4%
25,000-49,999	47.9%	2.1%	45.8%
10,000-24,999	45.9%	10.0%	35.9%
5,000-9,999	30.3%	2.0%	28.3%
Less than 5,000	23.5%	2.3%	21.2%

Region			
	1996	1994	Change in Percentage
Midwest	40.8%	4.8%	36.0%
Northeast	33.4%	3.9%	29.5%
South	38.8%	9.8%	29.0%
West	53.3%	12.7%	40.6%
Overall	39.6%	6.6%	33.0%

56kbps line (see Figure 12) with 72.8%, followed by a T1 line with 18.2%, and Other with 9.0%. Leased-line connections in the Other category were nearly all Integrated Services Digital Network (ISDN) connections. It is interesting to note that no public libraries indicated the use of T3 Internet connectivity. As the library population of legal service area decreases, the percentage of public libraries with a 56kbps leased-line connection increases (percentages ranging from 42.7% to 86.4%). As the population of legal service area increases, however, so too does the percentage of T1 public library connections (percentage of leased-line ranging from 7.5% to 57.3%). No public library that serves a population of legal service area of 9,999 or less has a T1 connection.

Public libraries in the Midwest and Northeast have higher percentages of 56kbps connections with 78.8% and 76.0%, respectively, than do public libraries in the South and West, with 64.2% and 66.1%, respectively (see Figure 12). The opposite is true for T1 leased-line connections. Public libraries in the South and West have, by nearly a factor of two, greater percentages of T1 leased-line connections, with 25.9% and 27.6%, respectively, as compared to public libraries in the Midwest and Northeast, with 12.3% and 13.4%, respectively.

As Figure 14 demonstrates, public libraries make nearly equal use of state library network (19.0%), local and/or state government organization (18.5%), commercial (17.5%), and regional/statewide network (16.5%) Internet service providers. Libraries that serve population of legal service areas of 249,999 or less make more use of state library networks (percentages ranging from 16.3% to 29.0%) than do libraries that serve population of legal service areas of 250,000 or greater (percentages ranging from 0.0% to 12.6%). Public libraries that serve population of legal service areas of 50,000 and above use commercial Internet providers up to twice as much (percentages ranging from 33.2% to 41.0%) as libraries that serve population of legal service areas of 49,999 or less (percentages ranging from 9.1% to 27.3%). It is interesting to note that larger public libraries (those libraries that serve population of legal service areas of 250,000 or greater) and smaller libraries (those libraries that serve population of legal service areas of 24,999 or less) make more use of local and/or state government organizations as Internet service providers (percentages ranging from 17.5% to 27.5%) than do medium-sized libraries (those libraries that serve population of legal service areas between 25,000 and 249,999), with percentages ranging from 16.8% to 18.5%. Of particular interest as well is that

over half of the libraries that serve population of legal service areas of 9,999 or less rely on a combination of state library networks, local and/or state government organizations, and local educational organizations for their Internet service.

The Other category, with an overall percentage of 11.3%, indicates some new developments in public library Internet service providers. Libraries indicating Other as an Internet service provider essentially identified two provider types: (1) Systems/automation vendors such as Data Research Associates, and (2) A hybrid Internet service provider approach that involved organizations such as a regional library consortium, state government, and commercial service providers.

Figure 14 also shows that libraries in the Midwest and Northeast tend to rely on local and/or state government organizations as Internet service providers (18.7% and 20.9%, respectively), followed by regional/statewide network providers (17.4% and 20.6%, respectively), state library networks (15.9% and 18.5%, respectively), and commercial providers (16.6% and 11.7%, respectively). Libraries in the South and West tend to rely on commercial providers (23.0% and 26.3%, respectively), followed by state library network providers (26.5% and 17.7%, respectively), local and/or state government service providers (15.6% and 16.1%, respectively), and local educational organization service providers (11.8% and 13.7%, respectively). Libraries in the South and West are, therefore, more apt to use commercial or state library networks as their Internet service providers, while libraries in the Midwest and Northeast are more likely to use local and/or state government or regional/statewide networks as their Internet service providers.

The 1994-1996 comparative data (see Figure 14) show that public libraries have moved from a reliance on statewide library network service providers (12.2%) to local and/or state government (+15.9%) and regional/statewide network service providers (+6.8%). Of particular interest is the large migration of public libraries that serve population of legal service areas of 24,999 or less that have made a large migration from statewide library network service providers (percentages ranging from -12.1% to -13.9%) to local and/or state government service providers (percentages ranging from +20.1% to +23.5%). The regional changes show three key aspects of public library Internet provider use changes: (1) There is an increased reliance in all regions on local and/or state government Internet service providers; (2) Public libraries in the

**Figure 14. 1994-1996 Public Library Type of Network Connection Provider by Population of Legal Service Area and Region.**

Population of Legal Service Area							
	1996						
	Local/State Government	Commercial	Educational Organization	Free-Net	State Library Network	Regional/Statewide Network	Other
1 million +	20.4%	33.8%	17.6%	14.8%	0.0%	21.3%	26.9%
500,000-999,999	17.5%	41.0%	16.9%	6.3%	9.4%	12.8%	21.0%
250,000-499,999	27.5%	34.9%	8.2%	6.3%	12.6%	28.1%	11.0%
100,000-249,999	16.8%	33.8%	15.5%	9.1%	23.3%	19.7%	15.4%
50,000-99,999	16.8%	33.2%	13.1%	3.9%	21.6%	28.8%	16.6%
25,000-49,999	18.5%	22.0%	17.8%	11.7%	25.5%	18.3%	12.7%
10,000-24,999	23.1%	27.3%	11.5%	5.4%	16.3%	23.6%	18.2%
5,000-9,999	22.1%	17.2%	10.8%	7.5%	20.9%	12.7%	17.2%
Less than 5,000	26.1%	9.1%	14.5%	5.3%	29.0%	18.3%	7.1%

Region							
Midwest	18.7%	16.6%	13.2%	8.3%	15.9%	17.4%	9.9%
Northeast	20.9%	11.7%	8.5%	4.0%	18.5%	20.6%	15.8%
South	15.6%	23.0%	11.8%	5.2%	26.5%	8.8%	9.1%
West	16.1%	26.3%	13.7%	4.3%	17.7%	15.2%	6.9%
Overall	18.5%	17.5%	11.4%	5.7%	19.0%	16.5%	11.3%

Population of Legal Service Area							
	1994						
	Local/State Government	Commercial	Educational Organization	Free-Net	State Library Network	Regional/Statewide Network	Other
1 million +	5.4%	21.9%	24.0%	0.0%	16.6%	11.0%	21.1%
500,000-999,999	2.1%	22.2%	15.9%	17.7%	17.0%	6.4%	10.7%
250,000-499,999	3.6%	27.7%	25.5%	2.4%	14.0%	13.5%	10.2%
100,000-249,999	4.0%	22.3%	16.4%	4.4%	20.7%	8.8%	22.0%
50,000-99,999	1.5%	11.3%	22.1%	5.2%	24.0%	14.9%	18.2%
25,000-49,999	4.3%	19.3%	15.6%	1.2%	33.7%	6.1%	16.7%
10,000-24,999	3.0%	14.1%	13.7%	5.7%	30.2%	7.3%	19.0%
5,000-9,999	0.0%	20.3%	7.8%	0.0%	33.2%	14.8%	17.3%
Less than 5,000	2.6%	5.9%	9.3%	10.2%	41.1%	8.7%	18.1%

Region							
Midwest	2.6%	19.5%	5.7%	8.8%	25.7%	13.0%	20.0%
Northeast	3.1%	11.9%	13.4%	4.1%	33.8%	6.4%	22.2%
South	1.8%	3.0%	22.1%	3.2%	39.7%	15.0%	11.2%
West	2.3%	24.4%	21.5%	6.7%	25.0%	5.5%	12.5%
Overall	2.6%	14.4%	14.0%	5.7%	31.2%	9.7%	18.1%

Continued

Figure 14 (continued). 1994-1996 Public Library Type of Network Connection Provider by Population of Legal Service Area and Region.

Population of Legal Service Area							
	Change in Percentage						
	Local/State Government	Commercial	Educational Organization	Free-Net	State Library Network	Regional/Statewide Network	Other
1 million +	15.0%	11.9%	-6.4%	14.8%	-16.6%	10.3%	5.8%
500,000-999,999	15.4%	18.8%	1.0%	-11.4%	-7.6%	6.4%	10.3%
250,000-499,999	23.9%	7.2%	-17.3%	3.9%	-1.4%	14.6%	0.8%
100,000-249,999	12.8%	11.5%	-0.9%	4.7%	2.6%	10.9%	-6.6%
50,000-99,999	15.3%	21.9%	-9.0%	-1.3%	-2.4%	13.9%	-1.6%
25,000-49,999	14.2%	2.7%	2.2%	10.5%	-8.2%	12.2%	-4.0%
10,000-24,999	20.1%	13.2%	-2.2%	-0.3%	-13.9%	16.3%	-0.8%
5,000-9,999	22.1%	-3.1%	3.0%	7.5%	-12.3%	-2.1%	-0.1%
Less than 5,000	23.5%	3.2%	5.2%	-4.9%	-12.1%	9.6%	-11.0%

Region							
	Change in Percentage						
	Local/State Government	Commercial	Educational Organization	Free-Net	State Library Network	Regional/Statewide Network	Other
Midwest	16.1%	-2.9%	7.5%	-0.5%	-9.8%	4.4%	-10.1%
Northeast	17.8%	-0.2%	-4.9%	-0.1%	-15.3%	14.2%	-6.4%
South	13.8%	20.0%	-10.3%	2.0%	-13.2%	-6.2%	-2.1%
West	13.8%	1.9%	-7.8%	-2.4%	-7.3%	9.7%	-5.6%
Overall	15.9%	3.1%	-2.6%	0.0%	-12.2%	6.8%	-6.8%

South are using commercial providers in larger percentages than any other library region (+20.0%); and, (3) Public libraries in the Northeast and South have substantially reduced their use of state library network Internet service providers (-15.3% and -13.2%, respectively).

*Public Library Information Technology (IT) Costs, Internet Service Costs, and Future Library Connection Resource Allocation*

Public libraries spend an average of 4.2% of their operating expenditures on all library IT (see Figure 15). Overall, however, 30.2% of public libraries indicated that they do not know their current percentage of IT-related operating expenditures (see note 2 on page 9). Public libraries that serve population of legal service areas between 10,000 and 499,999 have the largest overall IT-related operating expenditure percentages (percentages ranging from 4.5% to 6.1%). Public libraries that serve population of legal service areas between 500,000-1 Million+ and Less than 5,000-9,999 expend

the least percentage of library operating budgets on IT (percentages ranging from 1.7% to 3.8%).

To provide some sense of the overall public library IT-related expenditures in dollar amounts, the percentages of public library IT-related percentages were multiplied by the operating expenditure estimates provided in Figure 2. The authors would like to note that these are only rough estimates, particularly due to the 30.2% of respondents who indicated that they do not currently know their public library IT-related operating expenditures. Furthermore, due to rounding in operating expenditure dollar amounts and IT-related expenditure percentages, not all the dollar amounts in Figure 16 total to those presented in Figure 15.

Based on multiplying the IT-related operating expenditure percentages by the total library operating expenditures provided in Figure 2, public libraries spend an average of \$23,516.98 on library IT (see Figure 16). As public library population of legal service



**Figure 15. Estimated Public Library Percentage of Operating Budget for Library IT and Percentage of Library IT Expenditures for Library Internet Services by Population of Legal Service Area and Region.**

**Population of Legal Service Area**

	Estimated % for IT	IT Don't Know %	System %	Software %	Comm. %	Training %	Content %	Planning %	Other %
<b>1 million +</b>	1.7%	38.4%	43.0%	11.5%	17.0%	3.3%	2.9%	10.8%	11.5%
<b>500,000-999,999</b>	3.8%	29.4%	20.3%	10.2%	27.9%	11.5%	7.4%	10.8%	11.8%
<b>250,000-499,999</b>	4.5%	34.5%	31.0%	10.7%	23.8%	4.5%	3.9%	9.0%	17.2%
<b>100,000-249,999</b>	4.8%	26.0%	28.0%	17.3%	26.1%	9.1%	3.5%	6.5%	9.4%
<b>50,000-99,999</b>	5.1%	21.2%	31.9%	19.2%	19.2%	7.3%	7.3%	7.2%	8.0%
<b>25,000-49,999</b>	6.1%	19.3%	38.1%	14.4%	23.0%	10.3%	4.7%	3.7%	5.8%
<b>10,000-24,999</b>	4.9%	20.1%	32.8%	13.0%	17.6%	10.3%	6.7%	8.7%	10.9%
<b>5,000-9,999</b>	2.7%	35.4%	30.4%	11.7%	15.8%	4.4%	0.8%	5.8%	7.3%
<b>Less than 5,000</b>	3.2%	43.7%	33.0%	23.8%	16.0%	13.0%	8.5%	2.8%	2.8%

**Region**

	Estimated % for IT	IT Don't Know %	System %	Software %	Comm. %	Training %	Content %	Planning %	Other %
<b>Midwest</b>	3.8%	38.5%	31.6%	15.9%	25.4%	9.3%	5.3%	5.5%	7.0%
<b>Northeast</b>	3.4%	25.6%	35.2%	12.6%	19.9%	8.9%	7.2%	5.9%	10.3%
<b>South</b>	5.5%	21.9%	37.6%	23.1%	19.3%	9.4%	4.6%	7.0%	7.6%
<b>West</b>	6.1%	28.7%	27.2%	20.6%	24.8%	8.8%	4.5%	6.8%	7.3%
<b>Overall</b>	4.2%	30.2%	33.0%	15.6%	22.7%	9.1%	5.5%	6.1%	8.0%

**Figure 16. Public Library Operating Expenditures Spent on Library IT by Population of Legal Service Area and Region.**

**Population of Legal Service Area**

	Total Operating Expenditures on Library IT
<b>1 Million +</b>	\$517,174.18
<b>500,000-999,999</b>	\$545,881.88
<b>250,000-499,999</b>	\$298,109.45
<b>100,000-249,000</b>	\$137,092.71
<b>50,000-99,999</b>	\$61,136.57
<b>25,000-49,999</b>	\$44,250.53
<b>10,000-24,999</b>	\$17,323.10
<b>5,000-9,999</b>	\$3,751.95
<b>Less than 5,000</b>	\$1,262.81

**Region**

	Total Operating Expenditures on Library IT
<b>Midwest</b>	\$15,325.15
<b>Northeast</b>	\$15,293.78
<b>South</b>	\$40,460.61
<b>West</b>	\$66,857.08
<b>Overall</b>	\$23,516.98

area increases, IT-related expenditures increase. Public libraries that serve population of legal service areas of 1 Million+ spend an average of \$517,178.18 on library IT as compared to public libraries that serve population of legal service areas of less than 5,000 that spend an average of \$1,262.81 on library IT.

As Figures 15 and 16 show, public libraries in the West expend the most on library IT, with 6.1% (\$66,857.08), followed by libraries in the South with 5.5% (\$40,460.61), libraries in the Midwest with 3.8% (\$15,325.15), and libraries in the Northeast with 3.4% (\$15,293.78).

Public library participants were asked to estimate what portion of library IT-related expenditures went toward providing library Internet services (see Figure 15). Public libraries spend an average of 33.0% of their IT-related operating expenditures on system/server hardware costs, followed by 22.7% on communications hardware/fees, 15.6% on software costs, 9.1% on training and education costs, 8.0% on other Internet-service provision costs (e.g., building modifications and upgrades), 6.1% on program planning, management, and staffing costs, and 5.5% on content and resource development costs (see note 2 on page 9). A majority of public library Internet services IT-related operating funds, therefore, go towards hardware, software, and communications costs (71.3%). Public library training, content development, and planning percentage expenditures combined sum to only 20.7% of the total public library Internet-related IT expenditures. The overall Internet service expenditures hold relatively constant across public library population of legal service area categories.

The Internet services cost percentages, when combined with the estimated IT expenditures and operating expenditure figures, indicate that public libraries spend an average of \$7,760.60 on system/server hardware costs, followed by \$5,338.35 on communications hardware/fees, \$3,668.65 on software costs, \$2,140.05 on training and education costs, \$1,881.36 on other Internet-service provision costs (e.g., building modifications and upgrades), \$1,434.54 on program planning, management, and staffing costs, and \$1,293.43 on content and resource development costs (see Figure 17). In general, as library population of legal service area increases, so too do total dollar amounts on Internet services costs. It is interesting to note that for public libraries with a population of legal service area between 500,000 and 999,999, the costs of communication hardware/fees exceed those of systems hardware costs. While not asked on this survey, this may

have to do with one-time versus recurring Internet service costs — 64.0% of libraries in this category had an Internet connection in 1994. A majority of these libraries, therefore, would be investing in the maintenance — e.g., connection — costs of their Internet programs.

Internet service expenditure percentages and dollar amounts vary by public library region, with public libraries in the West and South spending substantially more on Internet services than public libraries in the Midwest and Northeast (see Figures 15-17). In all cost categories — system (expenditure range of \$4,842.75 to \$18,185.12), communication (expenditure range of \$3,892.59 to \$16,580.55), software (expenditure range of \$1,927.02 to \$13,772.56), training (expenditure range of \$1,361.15 to \$5,883.42), content (expenditure range of \$812.23 to \$3,008.57), and planning (expenditure range of \$842.88 to \$4,546.28) — libraries in the West and South outspend public libraries in the Midwest and Northeast by a factor of three or more, leading to substantial disparities in spending and incurred costs by public library region. As will be discussed in later sections of this report, these costs are generally related to the type of Internet connection libraries have and the services libraries provide through those connections — better connectivity and enhanced electronic services generally involve greater costs.

Figures 18-23 indicate the extent to which public library respondents thought that their library Internet services expenditures would remain the same, increase, or decrease over the next year. Once again, survey respondents had difficulty in estimating future Internet service expenditures, with percentages of "don't know" for the cost categories ranging from 27.5% to 37.8% (see Figures 18-23). Those who did respond, however, generally indicate that their Internet service-related expenditure will increase by 1-5% (percentages ranging from 14.3% to 23.0%) or greater than 5% (percentages ranging from 9.9% to 22.0%) across all cost categories. Almost a quarter (25.0%) of all public libraries did indicate that they anticipate their Internet-related expenditures to remain the same across all cost categories (percentages ranging from 25.1% to 28.4% — see Figures 18-23). In general, libraries serving population of legal service areas of 9,999 or less expect their current Internet-related cost expenditures to remain the same, while libraries serving population of legal service areas of 50,000 and above expect their Internet-related cost expenditures to increase. Such data indicate that the disparities in spending will accelerate the disparities in public library Internet connectivity and services, with public

Figure 17. Public Library Operating Expenditures Spent on Library Internet Services by Population of Legal Service Area and Region.

Population of Legal Service Area							
	System Costs	Software Costs	Communications Costs	Training/ Education Costs	Content/ Resources Costs	Planning Costs	Other Costs
1 Million +	\$222,384.90	\$59,475.03	\$87,919.61	\$17,066.75	\$14,998.05	\$55,854.81	\$59,475.03
500,000-999,999	\$110,814.02	\$55,679.95	\$152,301.04	\$62,776.42	\$40,395.26	\$58,955.24	\$64,414.06
250,000-499,999	\$92,413.93	\$31,897.71	\$70,950.05	\$13,414.93	\$11,626.27	\$26,829.85	\$51,274.83
100,000-249,000	\$38,385.96	\$23,717.04	\$35,781.20	\$12,475.44	\$4,798.24	\$8,911.03	\$12,886.71
50,000-99,999	\$19,502.57	\$11,738.22	\$11,738.22	\$4,462.97	\$4,462.97	\$4,401.83	\$4,890.93
25,000-49,999	\$16,859.45	\$6,372.08	\$10,177.62	\$4,557.80	\$2,079.77	\$1,637.27	\$2,566.53
10,000-24,999	\$5,681.98	\$2,252.00	\$3,048.87	\$1,784.28	\$1,160.65	\$1,507.11	\$1,888.22
5,000-9,999	\$1,140.59	\$438.98	\$592.81	\$165.09	\$30.02	\$217.61	\$273.89
Less than 5,000	\$416.73	\$300.55	\$202.05	\$164.17	\$107.34	\$35.36	\$35.36

Region							
	System Costs	Software Costs	Communications Costs	Training/ Education Costs	Content/ Resources Costs	Planning Costs	Other Costs
Midwest	\$4,842.75	\$2,436.70	\$3,892.59	\$1,425.24	\$812.23	\$842.88	\$1,072.76
Northeast	\$5,383.41	\$1,927.02	\$3,043.46	\$1,361.15	\$1,101.15	\$902.33	\$1,575.26
South	\$15,213.19	\$9,346.40	\$7,808.90	\$3,803.30	\$1,861.19	\$2,832.24	\$3,075.01
West	\$18,185.12	\$13,772.56	\$16,580.55	\$5,883.42	\$3,008.57	\$4,546.28	\$4,880.57
Overall	\$7,760.60	\$3,668.65	\$5,338.35	\$2,140.05	\$1,293.43	\$1,434.54	\$1,881.36

**Figure 18. Public Library Estimated System/Server Hardware Resource Allocation for the Next Fiscal Year by Population of Legal Service Area and Region.**

Population of Legal Service Area					
	Decline	Remain the Same	Increase 1-5%	Increase > 5%	Don't Know
1 million +	16.5%	8.3%	17.1%	44.1%	14.1%
500,000-999,999	2.4%	8.6%	21.6%	51.4%	15.9%
250,000-499,999	8.1%	11.5%	32.5%	24.5%	23.4%
100,000-249,999	9.5%	13.5%	26.4%	28.8%	21.9%
50,000-99,999	13.3%	22.9%	22.5%	25.3%	16.0%
25,000-49,999	8.4%	11.4%	12.6%	16.1%	11.5%
10,000-24,999	11.6%	19.8%	14.4%	23.9%	30.2%
5,000-9,999	7.6%	34.3%	5.4%	16.1%	36.6%
Less than 5,000	6.5%	35.9%	6.5%	15.4%	35.6%

Region					
	Decline	Remain the Same	Increase 1-5%	Increase > 5%	Don't Know
Midwest	11.0%	30.6%	9.8%	15.0%	33.7%
Northeast	9.9%	25.5%	11.1%	23.0%	30.5%
South	11.4%	18.7%	20.7%	26.8%	22.5%
West	5.7%	19.8%	25.6%	33.1%	15.7%
Overall	10.0%	25.5%	14.3%	22.0%	28.2%

**Figure 19. Public Library Estimated System Communications Hardware/Fees Resource Allocation for the Next Fiscal Year by Population of Legal Service Area and Region.**

Population of Legal Service Area					
	Decline	Remain the Same	Increase 1-5%	Increase > 5%	Don't Know
1 million +	18.1%	9.0%	27.8%	29.6%	15.5%
500,000-999,999	5.5%	9.2%	23.8%	47.3%	14.2%
250,000-499,999	4.0%	9.9%	28.6%	34.6%	22.9%
100,000-249,999	4.8%	21.2%	28.5%	25.2%	20.4%
50,000-99,999	7.4%	30.2%	20.1%	45.0%	13.5%
25,000-49,999	4.8%	27.1%	23.1%	25.7%	19.3%
10,000-24,999	4.3%	19.9%	28.0%	17.1%	30.7%
5,000-9,999	3.8%	29.0%	22.5%	15.7%	29.1%
Less than 5,000	1.6%	29.3%	18.6%	11.8%	38.6%

Region					
	Decline	Remain the Same	Increase 1-5%	Increase > 5%	Don't Know
Midwest	5.4%	29.2%	18.1%	17.4%	29.9%
Northeast	3.2%	20.8%	28.1%	11.5%	36.3%
South	3.6%	22.0%	23.7%	29.8%	20.9%
West	2.4%	29.4%	26.8%	29.2%	12.3%
Overall	4.0%	25.7%	23.0%	19.7%	27.5%

**Figure 20. Public Library Estimated Software Resource Allocation for the Next Fiscal Year by Population of Legal Service Area and Region.**

Population of Legal Service Area					
	Decline	Remain the Same	Increase 1-5%	Increase > 5%	Don't Know
1 million +	17.9%	28.6%	8.9%	38.2%	15.3%
500,000-999,999	0.0%	9.1%	34.6%	42.0%	14.3%
250,000-499,999	2.4%	11.6%	44.5%	20.0%	21.5%
100,000-249,999	6.7%	23.2%	29.2%	20.2%	20.7%
50,000-99,999	10.3%	37.4%	20.1%	17.5%	14.7%
25,000-49,999	8.2%	23.8%	17.4%	28.0%	22.5%
10,000-24,999	3.9%	26.6%	20.1%	19.8%	29.5%
5,000-9,999	6.0%	29.2%	19.0%	13.9%	31.9%
Less than 5,000	8.9%	32.2%	14.8%	6.9%	37.2%

Region					
	Decline	Remain the Same	Increase 1-5%	Increase > 5%	Don't Know
Midwest	11.0%	30.8%	13.8%	16.1%	28.2%
Northeast	1.8%	30.4%	21.9%	8.8%	37.1%
South	5.7%	23.6%	20.6%	27.8%	22.3%
West	6.8%	21.7%	30.7%	23.4%	17.3%
Overall	7.0%	28.1%	19.6%	17.3%	28.0%

**Figure 21. Public Library Estimated Training and Education Resource Allocation for the Next Fiscal Year by Population of Legal Service Area and Region.**

Population of Legal Service Area					
	Decline	Remain the Same	Increase 1-5%	Increase > 5%	Don't Know
1 million +	8.3%	33.6%	8.3%	35.8%	14.1%
500,000-999,999	0.0%	13.9%	32.8%	39.8%	13.5%
250,000-499,999	1.6%	20.3%	27.4%	25.1%	25.6%
100,000-249,999	0.9%	28.1%	28.1%	22.4%	20.6%
50,000-99,999	31.0%	44.1%	18.6%	18.8%	15.3%
25,000-49,999	3.1%	20.4%	29.2%	25.1%	24.2%
10,000-24,999	4.9%	22.0%	25.7%	18.8%	28.6%
5,000-9,999	3.7%	19.7%	30.5%	11.4%	34.8%
Less than 5,000	5.2%	24.7%	11.7%	13.9%	44.5%

Region					
	Decline	Remain the Same	Increase 1-5%	Increase > 5%	Don't Know
Midwest	5.8%	29.5%	17.2%	15.7%	31.8%
Northeast	0.5%	15.0%	28.1%	16.2%	40.3%
South	4.8%	30.0%	23.5%	20.8%	20.9%
West	1.6%	26.3%	26.3%	26.5%	19.3%
Overall	3.6%	25.1%	22.6%	18.3%	30.4%

**Figure 22. Public Library Estimated Content/Resource Development Resource Allocation for the Next Fiscal Year by Population of Legal Service Area and Region.**

Population of Legal Service Area					
	Decline	Remain the Same	Increase 1-5%	Increase > 5%	Don't Know
1 million +	16.5%	16.5%	8.8%	44.1%	14.1%
500,000-999,999	0.0%	18.4%	28.3%	35.9%	17.5%
250,000-499,999	5.7%	20.7%	24.0%	19.9%	29.6%
100,000-249,999	3.1%	25.7%	27.0%	17.7%	26.5%
50,000-99,999	3.3%	26.6%	27.4%	16.8%	25.9%
25,000-49,999	0.0%	22.1%	25.8%	17.7%	34.4%
10,000-24,999	4.0%	27.9%	15.6%	14.4%	38.0%
5,000-9,999	8.2%	32.9%	18.1%	7.9%	33.0%
Less than 5,000	4.5%	31.9%	13.9%	0.0%	49.7%

Region					
	Decline	Remain the Same	Increase 1-5%	Increase > 5%	Don't Know
Midwest	6.3%	29.8%	16.6%	11.9%	35.4%
Northeast	1.1%	27.3%	18.8%	3.4%	49.8%
South	3.3%	24.7%	20.8%	16.5%	34.6%
West	6.0%	30.0%	25.1%	17.6%	23.5%
Overall	4.2%	28.4%	19.5%	11.0%	37.0%

**Figure 23. Public Library Estimated Program Planning, Management, and Staffing Resource Allocation for the Next Fiscal Year by Population of Legal Service Area and Region.**

Population of Legal Service Area					
	Decline	Remain the Same	Increase 1-5%	Increase > 5%	Don't Know
1 million +	24.8%	25.3%	0.0%	35.8%	14.1%
500,000-999,999	0.0%	28.7%	16.4%	28.4%	26.4%
250,000-499,999	3.6%	30.3%	17.3%	15.1%	33.7%
100,000-249,999	2.6%	26.3%	25.2%	16.6%	29.2%
50,000-99,999	4.3%	39.0%	17.5%	17.6%	21.5%
25,000-49,999	7.0%	27.3%	19.4%	15.5%	30.7%
10,000-24,999	7.3%	26.2%	16.5%	11.1%	39.0%
5,000-9,999	0.0%	35.4%	15.0%	5.6%	44.0%
Less than 5,000	4.7%	18.9%	27.1%	0.0%	49.2%

Region					
	Decline	Remain the Same	Increase 1-5%	Increase > 5%	Don't Know
Midwest	8.1%	30.5%	18.5%	10.5%	32.4%
Northeast	3.4%	21.0%	18.1%	4.3%	53.2%
South	1.9%	27.5%	18.6%	15.6%	36.3%
West	1.2%	29.3%	31.6%	12.3%	25.6%
Overall	4.8%	27.3%	20.2%	9.9%	37.8%

libraries that service larger population of legal service areas having substantially higher percentages of connectivity and electronic service capabilities.

A relatively small percentage of public libraries expect their Internet-related cost expenditures to decrease (percentages ranging from 3.6% to 10% — see Figures 18-23). Interestingly, the highest percentage of libraries anticipating decreased expenditures are those, generally, with substantial Internet connectivity. It is, therefore, possible that anticipated expenditure reductions for, say, system and software costs, reflect a transition from one-time library investments in basic Internet connectivity to on-going connection maintenance.

Overall, public libraries in the West and South expect that their Internet-related cost expenditures will increase by nearly a factor of two over the next year compared to public libraries in the Midwest and Northeast across all cost categories (see Figures 18-23). Indeed, 50.0% or more of public libraries in the South and West expect their library Internet expenditures to increase by 1-5% or greater than 5% in the next year (see Figures 18-23). These figures indicate that discrepancies in Internet-related expenditures will increase, creating regions of higher quality and more

pervasive connectivity in the South and West as compared to the Midwest and Northeast.

#### Internet Public Library Uses and Public Access Services

This section details the extent to which public library staffs make use of Internet-related resources and make Internet-based services available to library patrons. Library staff-related uses of the Internet include e-mail, listservs, and World-Wide Web (Web) sessions. Patron services encompass the above, but also include such Internet-related aspects as public access terminals, remote dial-in services, and Web browsing.

#### Weekly Public Library Uses of the Internet

Figures 24 through 27 show the predominant weekly public library uses of the Internet by library staff. Overall, 17.7% of public library staff do not use e-mail, followed by 53.0% who use e-mail less than 25 times per week, 16.4% who use e-mail 26-50 times per week, 5.5% who use e-mail 51-100 times per week, and 7.4% who use e-mail more than 100 times per week (see Figure 24). In general, public library staffs that serve population of legal service areas of 100,000 or greater make the greatest use of e-mail, while library

Figure 24. Overall Public Library Staff Weekly E-Mail Use by Population of Legal Service Area and Region.

#### Population of Legal Service Area

	Never	Less than 25 Times/Week	26-50 Times/Week	51-100 Times/Week	More than 100 Times/Week
1 million +	0.0%	13.9%	13.0%	20.4%	52.7%
500,000-999,999	2.1%	10.9%	14.0%	14.4%	58.7%
250,000-499,999	7.4%	15.4%	21.8%	13.8%	41.6%
100,000-249,999	6.8%	34.6%	27.2%	7.2%	24.1%
50,000-99,999	8.1%	44.2%	23.5%	10.4%	13.7%
25,000-49,999	8.5%	54.4%	18.3%	10.2%	8.7%
10,000-24,999	22.9%	50.9%	17.2%	6.3%	2.8%
5,000-9,999	21.3%	53.8%	19.5%	4.3%	1.2%
Less than 5,000	24.3%	65.3%	8.3%	0.0%	2.2%

#### Region

	Never	Less than 25 Times/Week	26-50 Times/Week	51-100 Times/Week	More than 100 Times/Week
Midwest	15.1%	58.0%	17.0%	3.9%	5.9%
Northeast	27.0%	44.3%	15.1%	6.2%	7.5%
South	14.0%	52.2%	17.6%	7.9%	8.3%
West	5.6%	61.9%	16.4%	5.3%	10.8%
Overall	17.7%	53.0%	16.4%	5.5%	7.4%

Figure 25. Overall Public Library Staff Weekly Listserv/Discussion Group Use by Population of Legal Service Area and Region.

Population of Legal Service Area					
	Never	Less than 25 Times/Week	26-50 Times/Week	51-100 Times/Week	More than 100 Times/Week
1 million +	0.0%	20.4%	13.4%	14.3%	51.9%
500,000-999,999	2.1%	20.9%	25.9%	9.8%	41.3%
250,000-499,999	6.1%	29.3%	26.3%	8.2%	30.2%
100,000-249,999	13.6%	46.9%	15.3%	11.3%	12.9%
50,000-99,999	19.2%	52.7%	13.9%	7.8%	6.4%
25,000-49,999	24.2%	53.1%	13.7%	5.9%	3.0%
10,000-24,999	40.5%	44.5%	10.0%	2.9%	2.2%
5,000-9,999	61.8%	33.6%	2.4%	2.2%	0.0%
Less than 5,000	65.3%	24.2%	9.1%	1.4%	0.0%

Region					
	Never	Less than 25 Times/Week	26-50 Times/Week	51-100 Times/Week	More than 100 Times/Week
Midwest	51.4%	32.2%	9.0%	4.1%	3.3%
Northeast	49.9%	34.7%	10.3%	3.4%	1.7%
South	27.3%	47.0%	15.6%	4.3%	5.7%
West	23.3%	55.3%	8.3%	5.4%	7.7%
Overall	43.3%	38.5%	10.5%	4.0%	3.7%

Figure 26. Overall Public Library Staff Weekly Bibliographic Utility (e.g., Accessing Card Catalogs) Use by Population of Legal Service Area and Region.

Population of Legal Service Area					
	Never	Less than 25 Times/Week	26-50 Times/Week	51-100 Times/Week	More than 100 Times/Week
1 million +	6.5%	27.3%	13.4%	6.5%	46.3%
500,000-999,999	9.4%	19.0%	13.8%	10.9%	46.9%
250,000-499,999	15.4%	35.7%	7.4%	13.9%	27.6%
100,000-249,999	11.0%	47.5%	16.2%	11.8%	13.6%
50,000-99,999	17.5%	52.6%	14.9%	5.9%	9.1%
25,000-49,999	18.7%	55.4%	15.3%	5.0%	5.7%
10,000-24,999	24.1%	50.6%	14.8%	8.7%	1.8%
5,000-9,999	32.2%	51.6%	12.9%	1.5%	1.8%
Less than 5,000	42.3%	45.4%	10.9%	0.0%	1.4%

Region					
	Never	Less than 25 Times/Week	26-50 Times/Week	51-100 Times/Week	More than 100 Times/Week
Midwest	32.4%	53.1%	7.4%	3.4%	3.6%
Northeast	33.6%	39.8%	19.8%	3.1%	3.6%
South	19.2%	50.3%	14.4%	8.3%	7.8%
West	11.1%	60.6%	12.4%	6.8%	9.0%
Overall	27.9%	49.1%	13.4%	4.6%	5.0%



**Figure 27. Overall Public Library Staff Weekly World-Wide Web Sessions by Population of Legal Service Area and Region.**

Population of Legal Service Area					
	Never	Less than 25 Times/Week	26-50 Times/Week	51-100 Times/Week	More than 100 Times/Week
1 million +	6.5%	24.5%	20.8%	7.4%	40.8%
500,000-999,999	7.3%	17.1%	10.9%	17.2%	47.5%
250,000-499,999	15.7%	18.1%	23.2%	10.1%	32.8%
100,000-249,999	13.7%	37.5%	23.2%	11.5%	14.1%
50,000-99,999	10.3%	45.9%	24.7%	11.2%	8.0%
25,000-49,999	21.9%	42.7%	20.0%	7.0%	8.4%
10,000-24,999	30.6%	44.7%	17.2%	4.5%	3.1%
5,000-9,999	46.6%	39.6%	12.5%	1.3%	0.0%
Less than 5,000	50.7%	40.8%	6.5%	2.0%	0.0%

Region					
	Never	Less than 25 Times/Week	26-50 Times/Week	51-100 Times/Week	More than 100 Times/Week
Midwest	37.1%	40.8%	14.5%	2.6%	4.9%
Northeast	45.4%	36.2%	10.7%	5.2%	2.5%
South	19.2%	48.8%	16.2%	9.1%	6.6%
West	13.1%	44.8%	25.8%	6.2%	10.2%
Overall	33.8%	41.1%	14.9%	5.0%	5.1%

staffs that serve population of legal service areas of 99,999 or less make the least amount of use of e-mail. Indeed, over 70.0% of public library staffs that serve population of legal service areas of 9,999 or less never use e-mail or use it less than 25 times per week. Public library staffs in the four regions make essentially the same amount of use of e-mail. Notable exceptions exist, however, with 27.0% of public library staffs in the Northeast never using e-mail and 10.8% of public library staffs in the West using e-mail more than 100 times per week.

Figure 25 shows that 43.3% of public library staffs never use Internet-based listservs or discussion groups in a given week, followed by 38.5% who use listservs or discussion groups less than 25 times per week, 10.5% who use listservs or discussion groups 26-50 times per week, 4.0% who use listservs or discussion groups 51-100 times per week, and 3.7% who use listservs or discussion groups more than 100 times per week. Overall, as public library population of legal service area increases, so too does public library staff use of listservs or discussion groups. Public library staffs that serve population of legal service areas of 250,000 or greater make substantially more use of listservs or discussion

groups (percentages ranging from 30.2% to 51.9%) than do public library staffs that serve population of legal service areas of 249,999 or less (percentages ranging from 0.0% to 12.9%). In fact, 71.0% to over 95.0% of public library staffs that serve population of legal service areas of 99,999 or less either never use or use listservs or discussion groups less than 25 times per week.

As Figure 25 shows, public library staffs in the Midwest and Northeast are more apt to never use listservs or discussion groups (51.4% and 49.9%, respectively), whereas public library staffs in the South and West are more apt to use listservs or discussion groups at a rate of less than 25 times per week (47.0% and 55.3%, respectively).

Public library staffs make infrequent use of such Internet-based bibliographic utilities as card catalogs, with 27.9% of public library staffs never using bibliographic utilities per week, 49.1% who use bibliographic utilities less than 25 times per week, 13.4% who use bibliographic utilities 26-50 times per week, 4.6% who use bibliographic utilities 51-100 times per week, and 5.0% who use bibliographic utilities more than 100